

Docket No. 210022US55CONT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF: Alan K. SMITH et al

SERIAL NO: 09/893,470

FILED: June 29, 2001

FOR: HUMAN LINEAGE COMMITTED CELL COMPOSITION WITH ENHANCED PROLIFERATIVE POTENTIAL,
BIOLOGICAL EFFECTOR FUNCTION, OR BOTH METHODS FOR OBTAINING THE SAME; AND THEIR USES

GAU: 1644

EXAMINER: SAUNDERS, D.A.

INFORMATION DISCLOSURE/RELATED CASE STATEMENT UNDER 37 CFR 1.97

ASSISTANT COMMISSIONER FOR PATENTS
WASHINGTON, D.C. 20231

SIR:

Applicant(s) wish to disclose the following information.

COPY

REFERENCES

- ☒ The applicant(s) wish to make of record the references listed on the attached form PTO-1449. Copies of the listed references are attached, where required, as are either statements of relevancy or any readily available English translations of pertinent portions of any non-English language references.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

RELATED CASES

- ☐ Attached is a list of applicant's pending application(s) or issued patent(s) which may be related to the present application. A copy of the patent(s), together with a copy of the claims and drawings of the pending application(s) is attached along with PTO 1449.
- ☐ A check is attached in the amount required under 37 CFR §1.17(p).

CERTIFICATION

- ☐ Each item of information contained in this information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this statement.
- ☐ No item of information contained in this information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application or, to the knowledge of the undersigned, having made reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) more than three months prior to the filing of this statement.

DEPOSIT ACCOUNT

- ☒ Please charge any additional fees for the papers being filed herewith and for which no check is enclosed herewith, or credit any overpayment to deposit account number 15-0030. A duplicate copy of this sheet is enclosed.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.

Jean-Paul Lavalleye, Ph.D.

Registration No. 31,451

Daniel J. Pereira, Ph.D.

Registration No. 45,518

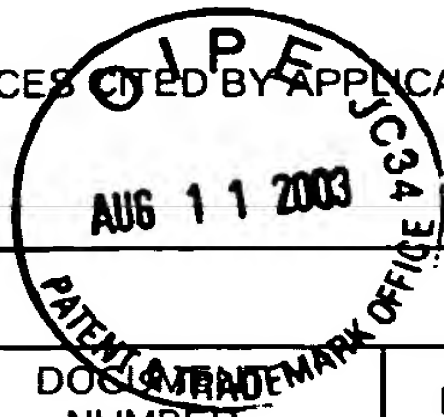


22850

Tel. (703) 413-3000
Fax. (703) 413-2220
(OSMMN 10/98)

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT
Alan K. SMITH et al.FILING DATE
June 29, 2001GROUP
1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	AA	6,326,198	12/04/01	Emerson et al			
	AB	6,299,650	10/09/01	Van Blitterswijk et al			
	AC	5,811,094	09/22/98	Caplan et al			
	AD	5,646,043	07/08/97	Emerson et al			
	AE	4,135,975	01/23/79	Lichtman et al			
	AF	4,514,499	04/30/85	Noll			
	AG	4,861,714	08/29/89	Dean et al			
	AH	5,032,407	07/16/91	Wagner et al			
	AI	5,605,822	02/25/97	Emerson et al			
	AJ	5,670,351	09/23/97	Emerson et al			
	AK	4,481,946	11/13/84	Altshuler et al			
	AL	4,714,680	12/22/87	Civin			
	AM	4,889,812	12/26/89	Guinn et al			
	AN	5,032,508	07/16/91	Naughton et al			

RECEIVED
AUG 13 2003
TECH CENTER

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	AO	90/15877A2	12/27/90	WIPO w/Abstract		
	AP	95/06409	03/09/95	WIPO w/Abstract		
	AQ	0 358 506	03/14/90	Europe w/Abstract		
	AR	0 455 482	11/06/91	Europe w/Abstract		
	AS	93/18136	09/16/93	WIPO w/Abstract		
	AT	93/18137	09/16/93	WIPO w/Abstract		
	AU					
	AV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	AW	M. W. Glacken et al., "Mammalian cell culture: engineering principles and scale-up", Trends in Biotechnology, Vol. 1, No. 4, 1983, PP. 102-108
	AX	Steven A. ROSENBERG et al., "In Vitro Growth of Murine T Cells II. Growth of in Vitro Sensitized Cells Cytotoxic for Alloantigens", The Journal of Immunology, Vol. 121, No. 5. November 1978, PP. 1951-1955
	AY	W. French ANDERSON, "Prospects for Human Gene Therapy", Science, Vol. 26, October 26, 1987, pp. 401-409
	AZ	T.M. Dexter, "The Message in the medium", Nature, Vol. 309, June 1984, pp 746-747

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2002

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	BA	5,945,225	08/31/99	Speith-Herfurth et al			
	BB	5,670,147	09/23/97	Emerson et al			
	BC	5,199,942	04/06/93	Gillis			
	BD	4,808,611	02/28/89	Cosman			
	BE	4,963,489	10/16/90	Naughton et al			
	BF	5,061,620	10/29/91	Tsukamoto et al			
	BG	5,922,597	07/13/99	Verfaillie et al			
	BH	5,399,493	03/21/95	Emerson et al			
	BI	4,810,643	03/07/89	Souza			
	BJ	4,965,204	10/23/90	Civin			
	BK	5,851,832	12/22/98	Weiss et al			
	BL	5,635,386	06/03/97	Palsson et al			
	BM	4,486,188	12/04/84	Altshuler et al			
	BN	4,847,201	07/11/89	Kaswasaki et al			

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	BO					
	BP					
	BQ					
	BR					
	BS					
	BT					
	BU					
	BV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	BW	Manfred R. Koller, et al. "Expansion of Primitive Human Hematopoietic Progenitors in a Perfusion Bioreactor System with LL-3, LL-6, and Stem Cell Factor", Biotechnology, Vol. 11, March, 1993, pp. 358-363
	BX	Bernhard O. PALSSON et al, "Expansion of Human Bone Marrow Progenitor Cells in a High Cell Density Continuous Perfusion System", Biotechnology, Vol. 11, March, 1993, pp. 368-372
	BY	Giovanni MIGLIACCIO et al., "In Vitro Differentiation of Human Granulocyte/Macrophage and Erythroid Progenitors: Comparative Analysis of the Influence of Recombinant Human Erythropoietin, G-CSF, GM-CSF, and IL-3 in Serum-Supplemented and Serum-Deprived Cultures", Blood, Vol. 72, No. 1 July 1988, pp. 248-255
	BZ	Ian K. McNiece et al., "Studies on the Myeloid Synergistic Factor From 5637: Comparison with Interleukin-1 Alpha", Blood, Vol. 73, No. 4 (March), 1989, pp. 919-923

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

210022US55CONT

SERIAL NO.

09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2002

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	CA	5,004,681	04/02/91	Boyse et al			
	CB						
	CC						
	CD						
	CE						
	CF						
	CG						
	CH						
	CI						
	CJ						
	CK						
	CL						
	CM						
	CN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	CO					
	CP					
	CQ					
	CR					
	CS					
	CT					
	CU					
	CV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	CW	Paul BAINES et al., Exp. Hematol. 16:785-789 (1988)
	CX	Jan A. NOLTA et al., Human Gene Therapy, 1:257-268 (1990)
	CY	John R. STEPHENSON et al., Proc. Nat. Acad. Sci. U.S.A., Vol. 68, No. 7, pp. 1542-1546, July 1971
	CZ	Giovanni MIGLIACCIO et al., Exp. Hematol. 18:1049-1055 (1990)

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 210022US55CONT		SERIAL NO. 09/893,470	
LIST OF REFERENCES CITED BY APPLICANT				APPLICANT Alan K. SMITH et al			
				FILING DATE June 29, 2002		GROUP 1644	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	DA						
	DB						
	DC						
	DD						
	DE						
	DF						
	DG						
	DH						
	DI						
	DJ						
	DK						
	DL						
	DM						
	DN						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	DQ						
	DP						
	DQ						
	DR						
	DS						
	DT						
	DU						
	DV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	DW	Richard M. Schwartz et al., "In Vitro Myelopoiesis Stimulated by Rapid Medium Exchange and Supplementation With Hematopoietic Growth Factors", Blood, Vol 78, No. 12, December 15, 1991, pp. 3155-3161					
	DX	Rob E. Ploemacher et al., "Use of Limiting-Dilution Type Long-Term Marrow Cultures in Frequency Analysis of Marrow-Repopulating and Spleen Colony-Forming Hematopoietic Stem Cells in the Mouse", Blood, Vol 78, No. 10 (November 15, 1991, pp. 2527-2533					
	DY	Manfred R. Koller et al., "Effects of Synergistic Cytokine Combinations, Low Oxygen, and Irradiated Stroma on the Expansion of Human Cord Blood Progenitors", Blood, Vol 80, No. 2 (July 15, 1992), pp. 403-411					
	DZ	J. AIKEN et al., Journal of Pediatric Surgery, Vol. 25, No. 1 (January), 1990; pp. 140-145					
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY DOCKET NO.

210022US55CONT

SERIAL NO.

09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al I

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	EA						
	EB						
	EC						
	ED						
	EE						
	EF						
	EG						
	EH						
	EI						
	EJ						
	EK						
	EL						
	EM						
	EN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO	
	EO					
	EP					
	EQ					
	ER					
	ES					
	ET					
	EU					
	EV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	EW	C. FAVRE et al., "Interleukin-4 has Basophilic and Eosinophilic Cell Growth-Promoting Activity on Cord Blood Cells", Blood, Vol. 1, January 1, 1990, pp. 67-73
	EX	Yoichi TAKAUE et al., "Limiting-Dilution Analysis of the Effects of Colony-Stimulating Factors, Phytohemagglutinin, and Hydrocortisone on Hematopoietic Progenitor Cell Growth", Blood, Vol. 70, No. 5, November, 1987, pp. 1611-1618
	EY	Yoichi TAKAUE et al., "Effect of Recombinant Human G-CSF, GM-CSF, IL-3, and IL-1 α on the Growth of Purified Human Peripheral Blood Progenitors", Blood, Vol. 76, No. 2, July 15, 1990, pp. 330-335
	EZ	H. J. Sutherland et al., "Alternative Mechanisms With and Without Steel Factor Support Primitive Human Hematopoiesis", Blood, Vol. 81, No. 6., March 15, 1993, pp. 1465-1470

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	FA						
	FB						
	FC						
	FD						
	FE						
	FF						
	FG						
	FH						
	FI						
	FJ						
	FK						
	FL						
	FM						
	FN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	FO					
	FP					
	FQ					
	FR					
	FS					
	FT					
	FU					
	FV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	FW	Lucia H. Coutinho et al., "Effects of Recombinant Human Granulocyte Colony-Stimulating Factor (CSF), Human Granulocyte Macrophage-CSF, and Gibbon Interleukin-3 on Hematopoiesis in Human Long-Term Bone Marrow Culture", Blood, Vol. 11, June 1, 1990, pp. 2118-2129
	FX	Susan C. GUBA et al., "Bone Marrow Stromal Fibroblasts Secrete Interleukin-6 and Granulocyte-Macrophage Colony-Stimulating Factor in the Absence of Inflammatory Stimulation: Demonstration by Serum-Free Bioassay, Enzyme-Linked Immunosorbent Assay, and Reverse Transcriptase Polymerase Chain Reaction", Blood, Vol. 80, No. 5, September 1, 1992, pp. 1190-1198
	FY	Richard M. SCHWARTZ et al., "Rapid medium perfusion rate significantly increases the productivity and longevity of human bone marrow cultures", Proc. Natl. Acad. Sci. USA, Vol. 88, pp. 6760-6764, August 1991
	FZ	David E. HARRISON et al., "Primitive hemopoietic stem cells: direct assay of most productive populations by competitive repopulation with simple binomial, correlation and covariance calculations", Experimental Hematology 21:206-219 (1993)

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	GA						
	GB						
	GC						
	GQ						
	GE						
	GF						
	GG						
	GH						
	GI						
	GJ						
	GK						
	GL						
	GM						
	GN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	GO					
	GP					
	GQ					
	GR					
	GS					
	GT					
	GU					
	GV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	GW	D. KRUMWIEH et al., "Preclinical Studies on Synergistic Effects of IL-1, IL-3, G-CSF and GM-CSF in Cynomolgus Monkeys", International Journal of Cell Cloning 8:229-248, Suppl. 1 (1990)
	GX	Makio OGAWA, Ph.D., "Effects of Hemopoietic Growth Factors on Stem Cells in Vitro", Hematology/Oncology Clinics of North America, Vol. 3(3) September 1989, pp. 453-464
	GY	Jerry CALDWELL et al., "Culture Perfusion Schedules Influence the Metabolic Activity and Granulocyte-Macrophage Colony-Stimulating Factor Production Rates of Human Bone Marrow Stromal Cells", Journal of Cellular Physiology, 147:344-353 (1991)
	GZ	C.M. HEYWORTH et al., "The Role of Hemopoietic Growth Factors in Self-Renewal and Differentiation of IL-3-Dependent Multipotential Stem Cells", Growth Factors, 1990, Vol. 2, pp. 197-211

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE
June 29, 2001GROUP
1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	HA						
	HB						
	HC						
	HD						
	HE						
	HF						
	HG						
	HH						
	HI						
	HI						
	HK						
	HL						
	HM						
	HN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	HO					
	HP					
	HQ					
	HR					
	HS					
	HT					
	HU					
	HV					

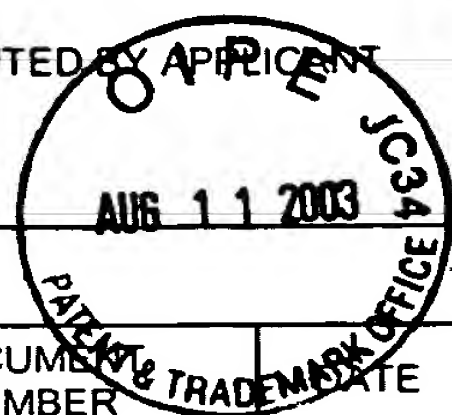
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	HW	Shiang HUANG et al., "Formation of haematopoietic Microenvironment and haematopoietic stem cells from single human bone marrow stem cells", Nature, Vol. 360, 24/31 December 1992, pp. 745-749
	HX	Randy A. HOCK et al., "Retrovirus-mediated transfer and expression of drug resistance genes in human haematopoietic progenitor cells", Nature, Vol. 320, March 1986, pp. 275-277
	HY	A.A. FAUSER et al., "Granuloerythropoietic Colonies in Human Bone Marrow, Peripheral Blood, and Cord Blood" Blood, Vol. 52, No. 6, December 1978, pp. 1243-1248
	HZ	C.D. MYERS et al., "A Cell Line Secreting Stimulating Factors for CFU-GEMM Culture", Blood, Vol. 64, No. 1 (July) 1984, pp. 152-155


Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



RECEIVED
AUG 13 2003
TECH CENTER

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 210022US55CONT		SERIAL NO. 09/893,470	
LIST OF REFERENCES CITED BY APPLICANT <div style="text-align: center; margin-top: 20px;">  </div>				APPLICANT Alan K. SMITH et al			
				FILING DATE June 29, 2001		GROUP 1644	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	IA						
	IB						
	IC						
	ID						
	IE						
	IF						
	IG						
	IH						
	IJ						
	IJ						
	IK						
	IL						
	IM						
	IN						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	IO						
	IP						
	IQ						
	IR						
	IS						
	IT						
	IU						
	IV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	IW	Alice M. WANG et al., "Molecular Cloning of the Complementary DNA for Human Tumor Necrosis Factor", Science, Vol. 228, 20 November 1984, pp. 149-154					
	IX	Colin A. SIEFF et al., "Human Recombinant Granulocyte-Macrophage Colony-Stimulating Factor: A Multilineage Hematopoietin" Science, Vol. 230, 6 December 1985, pp. 1171-1173					
	IY	Robert E. DONAHUTE et al., "Human IL-3 and GM-CSF Act Synergistically in Stimulating Hematopoiesis in Primates", Science, Vol. 241, 30 September 1988, pp. 1820-1823					
	IZ	Ronald H. SCHWARTZ, "A Cell Culture Model for T Lymphocyte Clonal Anergy", Science, Vol. 248, 15 June 1990, pp. 1349-1356					
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

RECEIVED
 AUG 13 2003
 TECH CENTER 16

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	JA					
	JB					
	JC					
	JD					
	JE					
	JF					
	JG					
	JH					
	JI					
	JJ					
	JK					
	JL					
	JM					
	JN					

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO	
	JO					
	JP					
	JQ					
	JR					
	JS					
	JT					
	JU					
	JV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	JW	Toshio SUDA et al., "A Stimulatory Effect of Recombinant Murine Interleukin-7 (IL-7) on B-Cell Colony Formation and an Inhibitory Effect of IL-1 α ", Blood, Vol. 74, No. 6, November 1, 1989, pp. 1936-1941
	JX	Heather J. SUTHERLAND et al., "Characterization and Partial Purification of Human Marrow Cells Capable of Initiating Long-Term Hematopoiesis In Vitro", Blood, Vol. 74, No. 5 (October), 1989; pp. 1563-1570
	JY	Sem SEELAND et al., "Combined and Sequential Effects of Human IL-3 and GM-CSF on the Proliferation of CD34+ Hematopoietic Cells From Cord Blood", Blood, Vol. 73, No. 5, (April), 1989; pp. 1195-1201
	JZ	Sallie S. BOGGS, "Targeted Gene Modification for Gene Therapy of Stem Cells", International Journal of Cell Cloning 8:80-96 (1990)

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 210022US55CONT		SERIAL NO. 09/893,470	
LIST OF REFERENCES CITED BY APPLICANT <div style="position: absolute; top: 50px; left: 100px; border: 1px solid black; border-radius: 50%; padding: 5px; transform: rotate(-45deg);"> OIPE AUG 11 2003 PATENT & TRADEMARK OFFICE </div>				APPLICANT Alan K. SMITH et al			
				FILING DATE June 29, 2001		GROUP 1644	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	KA						
	KB						
	KC						
	KD						
	KE						
	KF						
	KG						
	KH						
	KI						
	KJ						
	KK						
	KL						
	KM						
	KN						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	KO						
	KP						
	KQ						
	KR						
	KS						
	KT						
	KU						
	KV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	KW	Cynthia E. DUNBAR et al., "Gene Transfer into Hematopoietic Progenitor and Stem Cells: Progress and Problems", Stem Cells 1994;12:563-576					
	KX	Angelika MUELLER, "Die Knochenmarkstammzellkultur Technische Voraussetzungen und klinische Einsatzmoeglichkeiten", Folia Haematol., Leipzig 116 (1989) 5, 731-743					
	KY	Stephen G. EMERSON et al., "Purification of Fetal Hematopoietic Progenitors and Demonstration of Recombinant Multipotential Colony-stimulating Activity", The Journal of Clinical Investigation, Vol. 76, September 1985, 1286-1290					
	KZ	pp. 573-578: "Clinical Transplantation", In <u>Immunology</u> , Second Edition, J. Kuby, W.H. Freeman and Company, New York (1994)					
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

 RECEIVED
AUG 13 2003
TECH CENTER 1600/2500

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	LA						
	LB						
	LC						
	LD						
	LE						
	LF						
	LG						
	LH						
	LI						
	LJ						
	LK						
	LL						
	LM						
	LN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	LO					
	LP					
	LQ					
	LR					
	LS					
	LT					
	LU					
	LV					

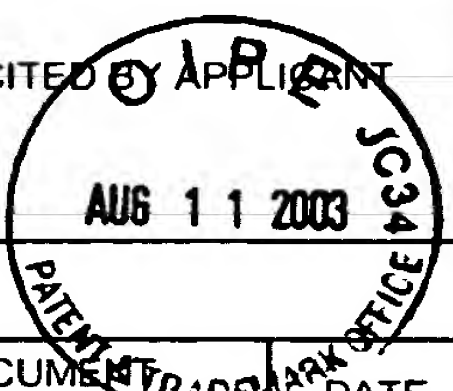
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	LW	Theodore FRIEDMANN, "Overcoming the Obstacles-Treating disease by providing needed genes remains a compelling idea, but clinical and basic researchers still have much to do before gene therapy can live up to its promise", Scientific American, June 1997, pp. 96-101
	LX	Joseph FEDER et al., "The Large-Scale Cultivation of Mammalian Cells", Scientific American, Vol. 248, No. 1 (January 1983), pp. 24-31
	LY	Heather J. SUTHERLAND, "Functional characterization of individual human hematopoietic stem cells cultured at limiting dilution on supportive marrow stromal layers", Proc. Natl. Acad. Sci. USA, Vol. 87 (1990), pp. 3584-3588
	LZ	Janice L. GABRILOVE et al., "Pluripoietin α : A second human hematopoietic colony-stimulating factor produced by the human bladder carcinoma cell line 5637", Proc. Natl. Acad. Sci. USA, Vol. 83, pp. 2478-2482, April 1986

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449 (Modified)		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY DOCKET NO. 210022US55CONT		SERIAL NO. 09/893,470	
LIST OF REFERENCES CITED BY APPLICANT <div style="text-align: center; margin-top: 20px;">  </div>				APPLICANT Alan K. SMITH et al			
				FILING DATE June 29, 2001		GROUP 1644	
U.S. PATENT DOCUMENTS							
EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	MA						
	MB						
	MC						
	MD						
	ME						
	MF						
	MG						
	MH						
	MI						
	MJ						
	MK						
	ML						
	MM						
	MN						
FOREIGN PATENT DOCUMENTS							
		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES NO		
	MO						
	MP						
	MQ						
	MR						
	MS						
	MT						
	MU						
	MV						
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)							
	MW	Jeffrey A. HUBBELL et al., "Endothelial Cell-Selective Materials for Tissue Engineering in the Vascular Graft Via a New Receptor, Biotechnology, Vol. 9, June 1991, pp. 568-572					
	MX	Jerry CALDWELL et al., "Influence of Medium Exchange Schedules on Metabolic, Growth, and GM-CSF Secretion Rates of Genetically Engineered NIH-3T3 Cells", Biotechnology Progress, Vol. 7, No. 1, January/February 1991, pp. 1-8					
	MY	Li Lu et al., "Effect of recombinant and purified human haematopoietic growth factors on in vitro colony formation by enriched populations of human megakaryocyte progenitor cells", British Journal of Haematology, 1988, Vol. 70, pp. 149-156					
	MZ	A. Montes BORINAGA et al., "Interleukin-6 is a cofactor for the growth of myeloid cells from human bone marrow aspirates but does not affect the clonogenicity of myeloma cells in vitro", British Journal of Haematology, 1990, No. 76, pp. 476-483					
Examiner					Date Considered		
*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

 RECEIVED
 AUG 13 2003
 TECH CENTER 16

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	NA						
	NB						
	NC						
	ND						
	NE						
	NF						
	NG						
	NH						
	NI						
	NJ						
	NK						
	NL						
	NM						
	NN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION	
					YES	NO
	NO					
	NP					
	NQ					
	NR					
	NS					
	NT					
	NU					
	NV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	NW	P.M. LEHN., "Gene therapy using bone marrow transplantation: a 1990 update", Bone Marrow Transplantation (1990), No. 5. pp. 287-293
	NX	Manfred R. KOLLER et al., "Beneficial Effects of Reduced Oxygen Tension and Perfusion in Long-Term Hematopoietic Cultures", Biochemical Engineering, VII, Vol. 665 of the Annals New York Academy of Sciences, pp. 105-116, (October 1992)
	NY	D. KRUMWIEH et al., "Human Recombinant Derived IL-3 and GM-CSF in Hematopoiesis of Normal Cynomolgus Monkeys", Behring Inst., Mitt., No. 83, pp. 250-257 (1988)
	NZ	John BRANDT et al., "Detection of Human Hematopoietic Progenitor Cell Capable of Forming Blast Cell Containing Colonies <u>In Vitro</u> ", Advances in Experimental Medicine and Biology, Vol. 241, pp. 165-173

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	OA						
	OB						
	OC						
	OD						
	OE						
	OF						
	OG						
	OH						
	OI						
	OJ						
	OK						
	OL						
	OM						
	ON						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	OO					
	OP					
	OQ					
	OR					
	OS					
	OT					
	OU					
	OV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	OW	C.J. EAVES et al., "The Human Hematopoietic Stem Cell In Vitro and In Vivo", Blood Cells (1992) 18:301-307
	OX	Masaaki ISHIZUKA et al., "Mitogenic Effect of Bestatin on Lymphocytes", The Journal of Antibiotics, Vol. 33, No. 6, (June 1980), pp. 653-662
	OY	Donald B. Kohn Ph.D. et al., "Gene Therapy for Genetic Diseases", Cancer Investigation, 7(2), pp. 179-192 (1989)
	OZ	Maria PODOLAK-DAWIDZIAK et al., "Does Human Bladder Carcinoma Cell Line 5637-Conditioned Medium Supplement the Growth of Megakaryocyte Colonies (CFU-Mk) in Cultures of Human bone Marrow", Haematologia, 23:121-123

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	PA						
	PB						
	PC						
	PD						
	PE						
	PF						
	PG						
	PH						
	PI						
	PJ						
	PK						
	PL						
	PM						
	PN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	PO					
	PP					
	PQ					
	PR					
	PS					
	PT					
	PU					
	PV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

PW	Jan A. NOLTA et al., "Comparison of the Effects of Growth Factors on Retroviral Vecto-Mediated Gene Transfer and the Proliferative Status of Human Hematopoietic Progenitor Cells", Human Gene Therapy, 1:257-268 (1990)
PX	Christoph HEBERLEIN et al., "The Gene for Erythropoietin Receptor is Expressed in Multipotential Hematopoietic and Embryonal Stem Cells: Evidence for Differentiation Stage-Specific Regulation", Molecular and Cellular Biology, Vol. 12 (14) pp. 1815-1826, (1992)
PY	Nicholas DAINLAK et al., "Interactions of Insulin, Insulinlike Growth Factor II, and Platelet-derived Growth Factor in Erythropoietic Culture", J. Clin. Invest. Vol. 76, September 1985, 1237-1242
PZ	Yves-Jacques SCHNEIDER et al., "Monoclonal Antibody Production in Semi-Continuous Serum-and protein-free culture", Journal of Immunological Methods, Vol. 129 (1990) pp.251-268

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	QA						
	QB						
	QC						
	QD						
	QE						
	QF						
	QG						
	QH						
	QI						
	QJ						
	QK						
	QL						
	QM						
	QN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	QO					
	QP					
	QQ					
	QR					
	QS					
	QT					
	QU					
	QV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	QW	Philip W. KANTOFF et al., "Expression of Human Adenosine Deaminase in Nonhuman Primates after Retrovirus-Mediated Gene Transfer", J. Exp. Med. Volume 166, July 1987, pp. 219-234.
	QX	Suzanne GARTNER et al., "Long-term culture of human bone marrow cells", Proc. Natl. Acad. Sci. USA, Vol. 77, No. 8, pp. 4756-4759, August 1980
	QY	Kenneth C. EHRLICH et al., "Artificial Capillary Perfusion Cell Culture: Metabolic Studies", In Vitro, Vol. 14, No. 5, 1978, pp. 443-450
	QX	B. R. JORDAN et al., "Transformation of Murine LMTK-Cells with Purified HLA Class I Genes", Immunogenetics, 18:165-171, 1983

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	RA					
	RB					
	RC					
	RD					
	RE					
	RF					
	RG					
	RH					
	RI					
	RJ					
	RK					
	RL					
	RM					
	RN					

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	RO					
	RP					
	RQ					
	RR					
	RS					
	RT					
	RU					
	RV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	RW	E. Morioka et al, "Purification of a granulocyte colony-stimulating factor from the conditioned medium of a subclone of human bladder carcinoma cell line 5637, HTB9", Res. Exp. Med. (1990), 190:229-238
	RX	Steven A. ROSENBERG et al., "In Vitro Growth of Murine T Cells II. Growth of in Vitro Sensitized Cells Cytotoxic for Alloantigens", The Journal of Immunology, Vol. 121, No. 5. November 1978, pp. 1951-1955
	RY	James Frank PARSONS et al., "In Vitro Cell Perfusion. 1. System for Continuous Observation of Cells and Analysis of Perfusion Fluid Suitable for Isolated Mast Cell and Macrophage Studies", Journal of Pharmacological Methods Vol. 8. pp. 073-089 (1982)
	RZ	S. R. ADAMSON et al., "Industrial Mammalian Cell Culture", The Canadian Journal of Chemical Engineering, Vol. 64, August 1986, pp. 531-539

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

RECEIVED
AUG 13 2003
TECH CENTER 1600/2500

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2001

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	SA						
	SB						
	SC						
	SD						
	SE						
	SF						
	SG						
	SH						
	SI						
	SJ						
	SK						
	SL						
	SM						
	SN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	SO					
	SP					
	SQ					
	SR					
	SS					
	ST					
	SU					
	SV					

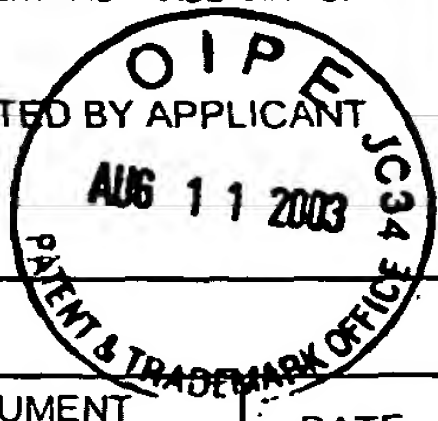
OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	SW	Avshalom MIZRAHI, "Production of Biologicals from Animal Cells an Overview", Process Biochemistry, (August 1986), pp. 108-112
	SX	Eastment and Rusceth, "Evaluation of Hematopoiesis in Long-Term Bone Marrow Culture: Comparison of Species Differences" In Long-Term Bone Marrow Culture, Kroc oundation Series Vol. 18, Proceeding of a Symposium Held at the Kroc Foundation Santa Ynex Valley, California, September 12-16, 1983
	SY	Connie J. Eaves et al., "Methodology of Long-Term Culture of Human Hemopoietic Cells", J. Tiss. Cult. Meth 13:55-62, 1991
	SZ	R. Ian FRESHNEY, "Culture of Animal Cells A Manual of Basic Technique", (1987) Department of Medical Oncology Cancer Research Campaign Laboratories University of Glasgow , Second Addition, pp. 305-307, Alan R. Liss, Inc. (New York)

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



TECH CENTER 1600/2900

AUG 13 2003

Form PTO 1449
(Modified)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICEATTY DOCKET NO.
210022US55CONTSERIAL NO.
09/893,470

LIST OF REFERENCES CITED BY APPLICANT

APPLICANT

Alan K. SMITH et al

FILING DATE

June 29, 2002

GROUP

1644

U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUB CLASS	FILING DATE IF APPROPRIATE
	TA						
	TB						
	TC						
	TD						
	TE						
	TF						
	TG						
	TH						
	TI						
	TJ						
	TK						
	TL						
	TM						
	TN						

FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	TRANSLATION YES	NO
	TO					
	TP					
	TQ					
	TR					
	TS					
	TT					
	TU					
	TV					

OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, etc.)

	TW	Yu-Chung YANG et al., "Human IL-3 (Multi-CSF): Identification by Expression Cloning of a Novel Hematopoietic Growth Factor Related to Murine IL-3", Cell, Vol. 47, pp. 3-10, October 10, 1986
	TX	
	TY	
	TZ	

Examiner

Date Considered

*Examiner: Initial if reference is considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

AUG 13 2003

TECH CENTER 1600/2900